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## **Claims**

- Service vehicle (6) for performing in-space operations on a selected target spacecraft (2), comprising a communication module (60) which with respect to its transmission and/or receiving characteristics is configurable in order to meet given receiver and/or transmitter parameters of said selected target spacecraft (2).
- 2. Service vehicle (6) according to claim 1, wherein said configurable communication module (60) comprises a transmitter (66).
- 3. Service vehicle (6) according to claim 1 or 2, wherein said communication module (60) comprises a configurable receiver (80).
- 4. Service vehicle (6) according to claim 3, wherein said receiver (80) is adjustable in ist working frequency in order to communicate with a telemetry channel of said selectual target spacecraft (2).
- 5. Service vehicle (6) according to one of the claims 1 through 4, further comprising a control module (68) for providing a setpoint for an output power of said configurable communication module (60).
- 6. Service vehicle (6) according to claim 5, wherein said control module (68) inputwise is connected to a first position sensor, said first position sensor delivering a set of data characteristic for the current position of said service vehicle (6).
- 7. Service vehicle (6) according to claim 6, wherein said control module (68) inputwise is connected to a second position sensor, said second position sensor delivering a set of data characteristic for the current position of said target spacecraft (2).
- 8. Service vehicle (6) according to one of the claims 5 through 7, wherein said control module (68) inputwise is connected to an orientation sensor, said orientation sensor

- delivering a set of data characteristic for the current orientation of said target spacecraft (2) in relation to said service vehicle (6).
- 9. Service vehicle (6) according to one of the claims 1 through 8, further comprising a docking system (24), said docking system (24) comprising a hollow first axle (40) inside of which a second axle (42) is moveably disposed, said second axle (42) carrying an activateable arrow tip (46).
- 10. Service vehicle (6) according to one of the claims 1 through 9, further comprising means for identifying said target spacecraft (2).
- 11. Servicing system (1) for providing in-space service operations to a selected target spacecraft (2), comprising a service vehicle (6) according to one of the claims 1 through 10, and further comprising a ground control module (12) for delivering operational commands to said service vehicle (6).
- 12. Servicing system (1) according to claim 11, wherein said ground control module (12) is set up to receive data from said service vehicle (6) by using said target spacecraft (2) as a relay station for signals emitted from said service vehicle (6).
- 13. Servicing system (1) according to claim 11 or 12, further comprising an orbit-based utility base (4) for said service vehicle (6).
- 14. Servicing system (1) according to one of the claims 11 through 13, further comprising a relay module for forwarding transmitted signals to said service vehicle (6).
- 15. Servicing system (1) according to one of the claims 11 through 14, comprising an engine module attachable to one or more of the components' utility agent, service vehicle or target spacecraft.
- 16. Method for in-space servicing of a selected target space-craft (2), wherein a service vehicle (6) according to one of the claims 1 through 10 is used to perform selected in-space operations on said target spacecraft (2), and wherein a telemetry channel

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between a ground control module (12) and said target spacecraft (2) is used to relay command signals to said service vehicle (6).